

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT

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**ENERGY POLICY & PROCEDURES****EP 11-06**

Issue Date: October 12, 2011

Expiration Date: Until Amended, or Revised as Described

TO: DOE WAP Contractors / Service Providers
CSD Staff

SUBJECT: REM/Design Energy Audit Multi-Family Audit Policy

PURPOSE: To establish CSD policy and provide relevant procedures to implement policy

EFFECTIVE DATE: October 12, 2011

New Policy/

Policy Statement: The Federal Department of Energy (DOE) has interpreted regulation and advanced guidance to CSD related to the performance of REM/Design energy audits on small multi-family buildings. The guidance redirects the manner in which REM/Design small multi-family energy audits are performed, necessitates a different form of tracking, and replaces any conflicting guidance associated with small multi-family audits prior to the effective date of this notice. Please issue this notification to all field supervisors and energy auditors at your agency for correct application of this information to your agency's energy audit files.

Background: Currently, agencies using REM/Design energy auditing software to perform small multi-family energy audits collect information for each particular model unit in a building and submit individual Improvement Analysis Reports and individual building files for each unit to equal the entire building. Going forward, a whole building approach for the energy audit will be used, i.e. the entire building is the primary subject of the energy audit, and not the combination of the building's individual units. The guidelines reflect the requirements when performing a REM/Design small multi-family audit and include a streamlined input form to use in tracking and reporting for individual units within a building. The information reflected below, some which is currently included in the Single-Family/Small Multi-Family Energy Audit Protocol, may be updated in Protocol revisions to further clarify multi-family energy audit requirements. Adoption of these standards will ensure conformance with regulation and DOE requirements.

Procedure or

Action Required: Applicability of REM/Design for Small Multi-Family Buildings

REM/Design is allowed for buildings up to 24 units as long as the building is:

- Three stories or fewer
- Individually metered for utilities
- Heated and cooled independently (each unit)
- Has own hot water heater (each unit)

Note: Notwithstanding the four conditions above, REM/Design is **required** for all 4-Plexes and smaller multi-family buildings.

The building is modeled in **one simulation**, and must be completed in “**Detailed Mode**”

- If the default in REM/Design is set to “Simplified” enter the minimum required fields to enable you to switch to detailed mode
- On tool bar go to “Tools”, click on “Change Building Input Mode”, and click on “To Detailed”
- Follow REM/Design program instructions until you successfully switch to the detailed mode

Housing Type

Once in Detailed input mode, select “**Multi-family, whole building**” as housing type.

Building Envelope

- Input the same as a single family dwelling
- Only input the exterior walls
- Only input one floor
- Only input one ceiling
- Number of bedrooms is TOTAL number of bedrooms in the entire building

Mechanical Equipment

- Must account for all mechanical equipment (REM/Design automatically splits system load based on capacity)
- Can input each piece of equipment manually or can increase number of units

Improvement Analysis

- When multiple pieces of identical equipment are specified, REM/Design replaces all of them
- Must pay attention to how REM/Design handles multiple systems in improvement analysis; review to ensure calculations make sense

Recording and Reporting Individual Units in a Multi-Family Building

Since only one Improvement Analysis Report (IAR) is generated to reflect the entire building, individual units need to be tracked and costs allocated using another mechanism. Rather than submitting a separate IAR and building (.blg) file to CSD for each unit in the building, only a single whole building IAR and building (.blg) file will be submitted. In place of individual unit IARs, the service provider needs to include in the submittal a REM/Design Multi-Family Input Cost Sheet that includes the appropriate information allocated by unit.

The Multi-Family Input Cost Sheet is completed by the energy auditor/verifier concurrently with performing the audit. The sheet contains common measures associated with a REM/Design energy audit and includes areas for additional input for unique (to a building or unit) measures. A copy of the whole building IAR and the Multi-Family Input Cost Sheet must be forwarded to CSD at rem@csd.ca.gov, and a copy of each should be maintained in any affected client file for monitoring and reconciliation purposes.

Multi-Family Input Cost Sheet

An electronic version (for electronic input) and a portable document format (PDF) version (for manual input) of the Multi-Family Input Cost Sheet has been provided separately and attached to the email transmitting this Energy Policy & Procedures. The auditor/verifier performing the audit may use and submit a copy of either completed version to CSD. Additionally, an example of a completed sheet is included for the service provider and auditor/verifier's use.

Contact:

Please contact Steve Lemke at (916) 576-4365 (slemke@csd.ca.gov) or Chuck Belk at (916) 576-7212 (cbelk@csd.ca.gov) with any questions regarding this policy.

This Energy Policy & Procedures document will be posted on line. It will also be maintained as part of the Policy & Procedures manual.